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EXAMINER	
HARPER, ELIYAH STONE	
ART UNIT	PAPER NUMBER
2166	

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05/24/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/783,779	GONG, YU	
	Examiner	Art Unit	
	ELIYAH S. HARPER	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *100-131* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *100-131* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/11/2010, 8/13/07, 9/29/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 3/31/2010 has been entered. No claims have been added, cancelled, or amended. Accordingly, claims 100-131 are pending in this office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 100-131 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 20050131970 (hereinafter Salazar) in view of US (20040034615 Thomson)

As for claim 100 Salazar discloses: a source ETL application receiving, from a user, input that selects one or more database objects to be transported from a source database to a target database (See paragraph 0020)

Wherein said source database includes source database metadata that describes a structure of database objects of said source database (See paragraph 0010).

Said source ETL application cause generation of a module comprising metadata that describes a structure of said one or more database objects of said source database (See paragraph 0024 note a LDIF file is generated for the purposes of populating the new target)

A target ETL application reading said module wherein said database includes target database metadata that describes a structure of database objects of said target database (See paragraphs 0010 and 0021 and 0022)

Wherein said target ETL application includes target ETL metadata, separate from said target database metadata, that describes a structure of said database objects of said target database (See paragraphs 0022 and 0020 note the LMS assigns and maintain association for assigned data or ID).

Wherein reading said module causes said target ETL application to perform

Modifying said target ETL metadata based on said source ETL metadata read from said module to describe a structure of said one or more database objects of said target database (See paragraph 0026); and

Modifying said target database metadata based on said metadata read from said module to describe the structure of said one or more database objects of said one or more database objects of said source database (See paragraphs 0029-0031) ;

A target database system incorporating a tablespace holding data for at least one of said one or more database objects (See paragraph 0030).

Salazar however does not explicitly disclose: wherein said source ETL application includes source ETL metadata, separate from said source database metadata. Thomson however does disclose: wherein said source ETL application includes source ETL metadata, separate from said source database metadata (See paragraph 0063); It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Thomson into the system of Salazar. The modification would have been obvious because the two references are concerned with the solution to problem of data processing, therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan would have been motivated to combine the cited references since Thomson's teaching would enable user's of the Salazar system to have more flexibility and efficiency transforming data into different formats for storage and retrieval purposes (See Thomson paragraphs 0011-0012).

As for claim 101 the rejection of claim 100 is incorporated and further Thomson discloses: in response to a failure occurring during the loading of said database objects within said target database, rolling back all changes made during the loading of the database objects to the target database (See paragraph 0066).

As for claim 102 the rejection of claim 100 is incorporated and further Thomson discloses: wherein the selected one or more database objects to be transported from a source database to a target database includes a database object that has metadata stored outside of the source database (See paragraphs 0151-0153).

As for claim 103 the rejection of claim 100 is incorporated and further Thomson discloses: wherein generation of a module includes analyzing the source database metadata for dependencies (See paragraph 0009).

As for claim 104 the rejection of claim 100 is incorporated and further Thomson discloses: wherein analyzing the source database metadata for dependencies includes ensuring proper order of loading of the source database metadata into the target database (See paragraph 0046, 0107).

As for claim 105 the rejection of claim 100 is incorporated and further Thomson discloses: storing said module in one or more files in a source file system (See paragraph 0046).

As for claim 106 the rejection of claim 105 is incorporated and further Salazar discloses: said target ETL application performing the steps of: reading a specification containing information for how to move modules from said source file system to a target file system; and wherein said information comprises a network protocol and the location in the source file system of said one or more files; and accessing said one or more files in a source file system based on said information (See paragraphs 0004).

As for claim 107 the rejection of claim 106 is incorporated and further Thomson discloses: wherein the network protocol is one of FTP, HTTP, HTTPS, or rsync (See paragraphs 0006, 0037, figure 2).

As for claim 108 Salazar discloses: a source external application receiving, from a user, input that selects one or more database objects wherein said one or more database objects include an internal database object to be transported from a source database to a target database (See paragraph 0020) and an external database object to be transported to a target external application

Wherein said source database includes source database metadata that describes a structure of database objects of said source database (See paragraph 0010).

Said source external application cause generation of a module comprising metadata that describes a structure of said one or more database objects (See

paragraph 0024 note a LDIF file is generated for the purposes of populating the new target)

A target external application reading said module wherein said database includes target database metadata that describes a structure of database objects of said target database (See paragraphs 0010 and 0021 and 0022)

Wherein said target ETL application includes target ETL metadata, separate from said target database metadata, that describes a structure of said database objects of said target database (See paragraphs 0022 and 0020 note the LMS assigns and maintain association for assigned data or ID).

Wherein said reading said module causes said target ETL application to perform loading said one or more database objects within said target database wherein loading includes:

Modifying said target external to describe said one or more database objects (See paragraph 0026); and

Modifying said target external metadata based to describe said internal database object (See paragraphs 0029-0031) ;

Salazar however does not explicitly disclose: wherein said source ETL application includes source external metadata, separate from said source database metadata. Thomson however does disclose: wherein said source external application includes source externall metadata, separate from said source database metadata (See paragraph 0063); It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of

Thomson into the system of Salazar. The modification would have been obvious because the two references are concerned with the solution to problem of data processing, therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan would have been motivated to combine the cited references since Thomson's teaching would enable user's of the Salazar system to have more flexibility and efficiency transforming data into different formats for storage and retrieval purposes (See Thomson paragraphs 0011-0012).

Claims 109-115 are method claims corresponding to the method of claims 103-107, 101-102 and are thus rejected for the same reasons as set forth in the rejection of claims 03-107, 101-102.

As for claim 116 a source ETL application receiving, from a user, input that selects one or more database objects to be transported from a source database to a target database (See paragraph 0020)

Wherein said source database includes source database metadata that describes a structure of database objects of said source database (See paragraph 0010).

Said source ETL application cause generation of a module comprising metadata that describes a structure of said one or more database objects of said source database

(See paragraph 0024 note a LDIF file is generated for the purposes of populating the new target)

A target ETL application reading said module wherein said database includes target database metadata that describes a structure of database objects of said target database (See paragraphs 0010 and 0021 and 0022)

Wherein said target ETL application includes target ETL metadata, separate from said target database metadata, that describes a structure of said database objects of said target database (See paragraphs 0022 and 0020 note the LMS assigns and maintain association for assigned data or ID).

Wherein reading said module causes said target ETL application to perform

Modifying said target ETL metadata based on said source ETL metadata read from said module to describe a structure of said one or more database objects of said target database (See paragraph 0026); and

Modifying said target database metadata based on said metadata read from said module to describe the structure of said one or more database objects of said one or more database objects of said source database (See paragraphs 0029-0031) ;

A target database system incorporating a tablespace holding data for at least one of said one or more database objects (See paragraph 0030).

Salazar however does not explicitly disclose: wherein said source ETL application includes source ETL metadata, separate from said source database metadata. Thomson however does disclose: wherein said source ETL application

includes source ETL metadata, separate from said source database metadata (See paragraph 0063); It would have been obvious to an artisan of ordinary skill in the pertinent at the time the invention was made to have incorporated the teaching of Thomson into the system of Salazar. The modification would have been obvious because the two references are concerned with the solution to problem of data processing, therefore there is an implicit motivation to combine these references. In other words, the ordinary skilled artisan, during his/her quest for a solution to the cited problem, would look to the cited references at the time the invention was made. Consequently, the ordinary skilled artisan would have been motivated to combine the cited references since Thomson's teaching would enable user's of the Salazar system to have more flexibility and efficiency transforming data into different formats for storage and retrieval purposes (See Thomson paragraphs 0011-0012).

Claims 117-131 are computer-readable volatile or non-volatile storage device claims corresponding to claims 101-115 and are thus rejected for the same reasons as set forth in the rejection of claims 101-115.

Response to Arguments

Applicant's arguments filed 3/31/2010 have been fully considered but they are not persuasive.

Applicant argues:

The claims recite transporting the database objects themselves from a source database to a target database. In order to transport database objects, it is necessary to have information regarding the structure of those database objects. In contrast, extracting data that is contained within database objects in a target database only requires knowledge of the structure of the source database objects during the extraction process. Once the data are extracted, the structure of the objects in which it was stored becomes irrelevant. Salazar describes transporting data extracted from a source database, not transporting the database objects containing the data, as claimed.

No combination of Salazar and Thomson teaches or suggests the quoted feature. Thomson does not, nor is it alleged to, teach or suggest the quoted feature. The Office Action relies instead on paragraph [0010] of Salazar to allegedly teach this feature. Paragraph [0010] describes an overview of the process of extracting data from one data source, transforming the data, and loading the data into a target system. However, the details of how this is accomplished in Salazar are quite different from what is claimed. Salazar does not mention that the source database includes metadata that describes the structure of source database objects, as claimed. However, even if it is reasonable to assume that Salazar's source database includes metadata that describes

the structure of source database objects, Salazar still does not teach the claimed features.

The Office Action appears to consider the data files 18 shown in Figure 1 to be equivalent to the claimed module. However, there is no mention that Salazar's data files 18 comprise metadata that describes the structure of source database objects. The metadata mentioned in the cited paragraph is metadata that describes the relationship between the extracted user and course data, and this metadata is independent of the structure of the source database objects in which this data were stored in the source database. Once the data are extracted from the source database, Salazar does not describe any motivation or use for retaining the source database metadata along with the extracted course and user data.

Examiner responds:

Examiner is not persuaded. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. Interpretation of Claims-Broadest Reasonable Interpretation: During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). In this case Applicant argues that Salazar gives a broad overview of extracting , transforming and loading but does not disclose the claimed "metadata that describes a

structure of database objects" examiner first notes that the struture described is the structure of the objects themselves and furthermore to dscribe is simply to give an account of. One way to describe something is relative to something else and as applicant admits "The metadata mentioned in the cited paragraph is metadata that describes the relationship between the extracted user and course data," Examiner recommends further defining what exactly it means to "describe" the structure of an object.

Applicant argues:

The Office Action relies on paragraph [0026] of Salazar to allegedly teach the quoted feature. Paragraph [0026] describes the application of XSL transforms to the XML data files that hold the user and course data extracted from the source database. The Office Action appears to consider the XSL transformation of data files to be equivalent to the target ETL application. However, the source ETL metadata is defined to be data included in the source ETL application separate from the source database metadata, but which describes a structure of the source database objects. As explained above, no source database metadata is placed into Salazar's source data files (module). Thus, it is not possible for Salazar's XSL transformation (target ETL application) to read such source database metadata from the source data files, as claimed.

Furthermore, if the XSL style sheets are considered equivalent to the target ETL application metadata, there is no disclosure that Salazar modifies the XLS style sheets

Examiner responds

Examiner is not persuaded. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. Interpretation of Claims-Broadest Reasonable Interpretation: During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). In this case Applicant argues that Salazar gives a broad overview of extracting , transforming and loading but does not disclose the claimed "metadata that describes a structure of database objects" examiner first notes that the struture described is the structure of the objects themselves and furthermore to dscribe is simply to give an account of. One way to describe something is relative to something else and as applicant admits "The metadata mentioned in the cited paragraph is metadata that describes the relationship between the extracted user and course data," Examiner recommends further defining what it means to "describe" the structure of an object.

Applicant argues:

In addition, claims 100 and 116 recite: "modifying said target database metadata based on said metadata read from said module to describe the structure of said one or more database objects of said source database" The Office Action relies on paragraphs [0029]-[0031] of Salazar to allegedly teach this quoted feature. Paragraph [0031] states: "Advantageously, the flexibility of the present invention generates new unique identifiers on target system while maintaining links between progress data, instructor information and user information that existed in source system."

Links between progress data, instructor information, and user information are not the same as information about the structure of database objects. The links described in Salazar may associate data objects with each other, but these links are independent of how the data was stored within database objects in the source database. In addition, there is no mention in Salazar of target database metadata that describes the structure of one or more target database objects. However, even if we assume that such target metadata exists, there is no mention of modifying the target database metadata based on metadata read from the source data files (module).

Examiner responds:

Examiner is not persuaded. Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. Interpretation of Claims-Broadest Reasonable Interpretation: During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad

interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969). In this case Applicant argues that Salazar gives a broad overview of extracting , transforming and loading but does not disclose the claimed “metadata that describes a structure of database objects” examiner first notes that the struture described is the structure of the objects themselves and furthermore to dscribe is simply to give an account of. One way to describe something is relative to something else and as applicant admits “The metadata mentioned in the cited paragraph is metadata that describes the relationship between the extracted user and course data,” Examiner recommends further defining what it means to “describe” the structure of an object.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIYAH S. HARPER whose telephone number is (571)272-0759. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ESH
Eliyah S. Harper
May 21, 2010

/Khanh B. Pham/
Primary Examiner, Art Unit 2166